

Translation

PATENT COOPERATION TREATY

PCT/EP2003/006481



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 10972P-WO	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/006481	International filing date ( <i>day/month/year</i> ) 18 June 2003 (18.06.2003)	Priority date ( <i>day/month/year</i> ) 19 June 2002 (19.06.2002)
International Patent Classification (IPC) or national classification and IPC G01R 31/28		
Applicant AKT ELECTRON BEAM TECHNOLOGY GMBH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>8</u> sheets, including this cover sheet.  <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of <u>7</u> sheets.
3. This report contains indications relating to the following items:  I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 13 January 2004 (13.01.2004)	Date of completion of this report 13 December 2004 (13.12.2004)
Name and mailing address of the IPEA/EP  Facsimile No.	Authorized officer  Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_, 1, 2, 4-17 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_ 3 \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 12 November 2004 (12.11.2004)
- ☒ the claims:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_ 1-28 \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 12 November 2004 (12.11.2004)
- ☒ the drawings:  
pages \_\_\_\_\_ 1/6-6/6 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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## III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application.

☒ claims Nos. 28

because:

☐ the said international application, or the said claims Nos. \_\_\_\_\_  
relate to the following subject matter which does not require an international preliminary examination (*specify*):

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 28  
are so unclear that no meaningful opinion could be formed (*specify*):

See the supplemental sheet

☐ the claims, or said claims Nos. \_\_\_\_\_ are so inadequately supported  
by the description that no meaningful opinion could be formed.

☐ no international search report has been established for said claims Nos. \_\_\_\_\_.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: III.1

**Non-establishment of opinion with regard to novelty,  
inventive step and industrial applicability**

The application does not meet the requirements of PCT Article 6 because claim 28 is unclear.

The expressions used in claim 28 ("*... that was tested using a testing method according to ... or with a device according to*") are not only vague and unclear but attempt to define the claimed apparatus by features which are based only on a test method. Thus the wording of claim 28 leaves the reader uncertain as to the meaning of the technical features in question. Consequently the subject matter of this claim is not clearly defined (PCT Article 6).

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-27	YES
	Claims		NO
Inventive step (IS)	Claims	1-27	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-27	YES
	Claims		NO

## 2. Citations and explanations

## 1. Reference is made to the following documents:

**D1:** EP-A-0 806 700 (SEIKO EPSON CORP) 12 November 1997 (1997-11-12)

**D2:** US-B1-6 337 722 (HA YONG-MIN) 8 January 2002 (2002-01-08)

**D3:** US-A-5 774 100 (AOKI YOSHIRO ET AL) 30 June 1998 (1998-06-30)

**D4:** US-B1-6 380 729 (SMITH JOHN STEPHEN) 30 April 2002 (2002-04-30)

**D5:** WO 98 31050 A (HOLMBERG SCOTT H; IMAGE QUEST TECHNOLOGIES INC (US)) 16 July 1998 (1998-07-16)

**D6:** US-B1-6 340 963 (ANNO KOUICHI ET AL) 22 January 2002 (2002-01-22)

2. **D1**, which is considered the closest prior art, discloses (cf., for example, page 2, lines 4 to 42, together with figure 19, and page 3, lines 32 to 46, together with figure 1)

**control electronics** for an optoelectronic apparatus which comprises a matrix of pixels, with a driver circuit and with at least two arrangements of

contact surfaces which are connected to the inputs of the driver circuit.

3. The subject matter of independent claims 1, 13 and 27 therefore differs from the above disclosure in that *the contact surfaces of the second arrangement are larger than those of the first arrangement.*

Therefore the subject matter of these claims is novel (PCT Article 33(2)).

4. The problem addressed by the present invention can thus be considered that of overcoming the prior art problems concerning the test methods. When the apparatus as per **D1** is being tested, a plurality of contact surfaces have to be contacted, such that the display element has to be shifted during the test.

For the following reasons, the solution to this problem proposed in independent claims 1, 13 and 27 involves an inventive step (PCT Article 33(3)):

None of the available documents, **D1** to **D6**, discloses two arrangements of contact surfaces which are connected to the *input* of the driver circuit and are of different sizes. Only **D1** (see figure 1) could be interpreted to mean that two *arrangements* of contact surfaces 34 and 35 are connected to the circuit input, but in no way are they of different sizes (see figure 19 also). The other documents disclose merely test arrangements connected to the driver circuit output.

Therefore a person skilled in the art, faced with the teachings of the available documents, would not arrive at the subject matter of claims 1, 13 and 27 in an obvious manner.

Consequently these claims meet the inventive step requirements of PCT Article 33(3).

5. Claims 2 to 12 and 14 to 26 are dependent on claims 1 and 13, respectively, and hence likewise meet the PCT novelty and inventive step requirements.
6. Although claims 1 and 13 were drafted as separate, independent claims, they actually appear to refer to the same subject matter and evidently differ only in terms of differing definitions of the subject matter for which protection is sought or by the terminology used for the features of this subject matter. Therefore the claims are not concise. Moreover, the claims as a whole lack clarity, since, owing to the number of independent claims, it is difficult, if not impossible, to determine the subject matter for which protection is sought, rendering it unreasonably difficult for third parties to establish the scope of protection.

Therefore claims 1 and 13 do not meet the requirements of PCT Article 6.

7. The independent claims have not been drafted in the two-part form (PCT Rule 6.3(b)). However, in the present case, the two-part form would appear to be appropriate. Therefore the features known together from the prior art should be combined in the preamble (PCT Rule 6.3(b)(i)) with the other

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features appearing in the characterizing part (PCT Rule 6.3(b)(ii)).

8. Contrary to the requirement of PCT Rule 5.1(a)(ii), the description did not cite **D1** to **D6** or the relevant prior art contained therein.